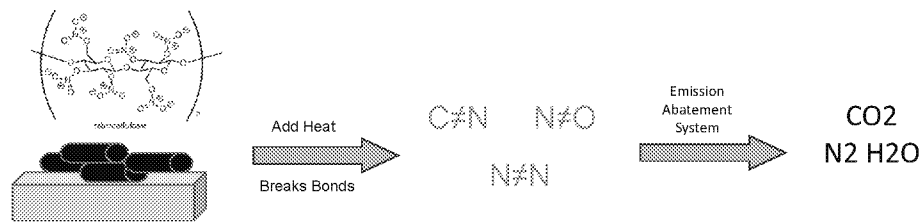




U.S. Demil, LLC

Patented "Decineration™" Thermal Process

Science of Decineration™ Technology



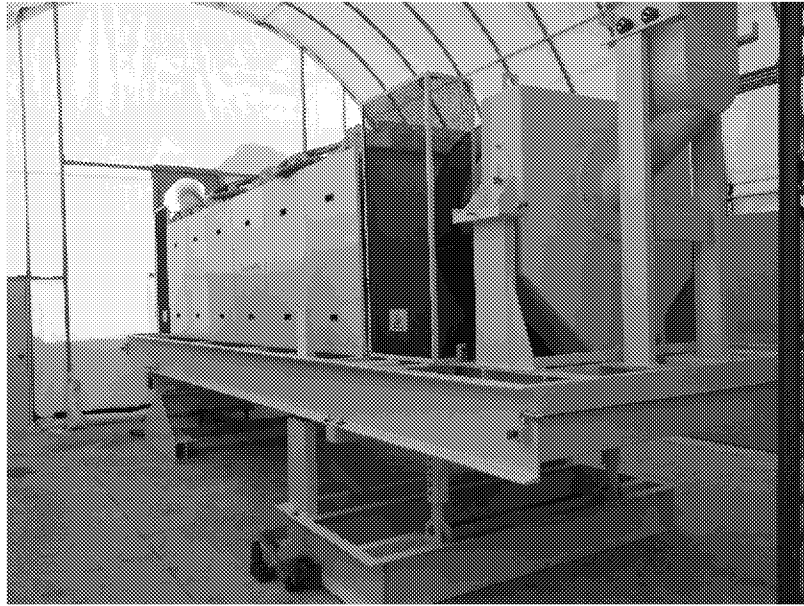
- In Chemistry this is called "*Decomposition*"
- The industrial embodiment of the Decineration™ process is the use of an externally heated, rotating horizontal tube which essentially duplicates the laboratory model known as "a horizontal flat plate in atmosphere".

Decineration™ is a *non-incinerative*, thermal process as determined by the **US EPA Headquarters Solid Waste Division** and the **Indiana Department of Environmental Management**.

Complex, long chain, solid energetics (nitrocellulose, nitramines and nitrate esters) are ***decomposed*** into short chain, light hydrocarbon gases by fracturing the carbon-carbon, carbon-nitrogen, nitrogen-oxygen and nitrogen-nitrogen bonds.

The process occurs at ambient pressure and moderate temperature of approximately (400° - 700° F) in an externally heated rotary tube *without* contact between heating source and munitions components.

- The science of the decomposition of energetic compounds has been studied by the Military Services and Research Universities for decades; e.g., G.T. Long, Department of Chemistry, University of Utah (Thermal Analysis of High Explosives: Liquid State Decomposition of RDX) and LT K.K. Miles, Naval Postgraduate School (The Thermal Decomposition of RDX).
- The process is fully mature and has been known to industry (i.e. petrochemical) for more than a century.



Advantages

Decineration™:

- Has precise temperature and time (dwell) control
- Does not form lead oxide in the off gas
- Does not burn heavy metals such as cadmium or chrome
- Does not melt non-ferrous metals such as aluminum
- Processes the broadest spectrum of munitions of any current technology; the very definition of **OMNIVEROUS!!!**
- Proven to Meet the MACT Standards of US EPA for **NEW SOURCES**

Decineration™ gases are removed for treatment in an Emissions Abatement System (EAS), leaving behind *fully demilitarized munitions* in a “Material Determined As Safe” (MDAS) condition.

The resulting metal has been determined by QASAS certified personnel, through chemical testing, to be **100% demilitarized**.

Unlike other technologies which can destroy the metal alloy, Decineration™ leaves metal components ready for immediate recycling and/or possible reuse.

Low Decineration™ temperatures avoid the formation toxic compounds such as dioxin.

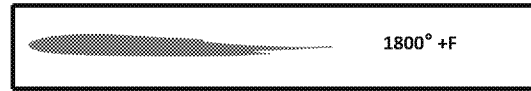
Incineration is a Legal Term defined within *US EPA Regulations*

The Layman's Test: is there a **direct path** from the *heat source* to the *material* being treated?

- **IF Yes** – It is incineration
- **IF No** – It is **NOT** incineration

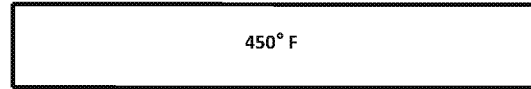
Rotary Kiln vs Oven Technology


APE 1236



DIRECT PATH - INCINERATION

USD ELECTRIC FURNACE




NO DIRECT PATH – NOT INCINERATION

WHY IS THIS IMPORTANT?

IT'S ABOUT GETTING THE **PERMIT!!!**

The USEPA and the State Regulatory agencies have not granted a permit for a new explosive waste incinerator on a US Army facility in more than 20 years.

USEPA and Indiana Environmental Management BOTH agree that DECINATION™ is **NOT** Incineration

US EPA RCRA Letter



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

630 630

1. 2017. 12. 15.
 2. 2017. 12. 15.
 3. 2017. 12. 15.

Mr. William C. Beardsall, Esq.
Verge and Robinsons Twenty-Five Fls.
2600 Myrtle Ave., N.W., Suite 100
Washington, D.C. 20037

David M. Bunker

[illegible]

In addition, based on its description of the process in *overlaid*, the site agrees that its Wynona process for small *salmon* structures does not involve deposit of the materials and, similarly, 50 C.F.R. 206.206-2 is applicable to this process. With respect to the site's agreement to agree on, amend, etc., and to install shell casing from the lost bullet in facilities (owners of the two different models envelopes including, disassembly, construction, or other materials recovery, etc.).

[illegible]

was required for the ability to access the crystals. The energetic nature of ground-state separation of the triplet-sensitized and, thus, essential in this distal energy transfer. It is our proposal that the dissociation of the energetic dimer or triplet is essential to the process that requires substantial input for separating the atoms further. CFS does not consider this dimension as activities that would require the economy waste trade and, thus, therefore, refer to the S-4.

Given that you already have a methyl resistant protease and that also strains of enzymes appear useful to the process, it is more necessary to provide evidence that general nucleic acid binding for energy recovery is used in the CBE (see 2016/12). However, it does not appear that you have enough evidence to show that.

As you see above, FIPA generally cautions States to implement their biodiversity model programs in line with SDGAs. This, in turn, makes the following disclaimer about individual decisions based on State laws. States may not be more stringent than the FIPA rules and recommendations. It is important for you to read the State's participating in biodiversity where you intend to locate your position and ensure you are aware of the measures that the respective state's legislation may take to make sure.

5000

Mr. Hale, Director
Office of Naval Research

IDEM Letter



Indian Department of Environmental Management
The President's Office, and the Government
Secretariat Building, Secretariat Building
New Delhi - 110 055
Tel: 011-2338 2111, 2338 2112, 2338 2113

161. Larry Kuntz, Esq.
Magdalen Christopher Hall, LLP
1700 Market Street
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Indianapolis, Indiana 46204

Page 14 of 16

See: 11814006, 11814007
Mining Activities Report
C.A.B. See also: 11814005, 11814009
11814000-11814009

Dear Sir,

As a follow up to our meeting on May 1, I wanted to address the application of the Minnesota Worker Rule, 206A.01, to the civil service. Currently, all Minnesota government agencies at State Service Workers Council #89 are excluded by SPS for two reasons: no wage program and too small to receive the federal Minimum Wage.

Respect to the responses provided during the meeting, Trans is providing a process for the delivery of action items across departments. This involves the use of controlled e-mail lists to report the status of response items to the user group. The e-mail list is maintained during the agreed time periods, after the agreed components will be completed on the timeline. Another email will provide the answers as detailed, so the response reporting system also will be used. If the availability of the system is affected, the response reporting system will be a better option and the timeline will be a better report.

SPR addressed a series of general issues April 16, 2005 before Main State Governor. Officials invited guests to William C. Cavanaugh, Jr., Governor and his personal physician. The officials also led the medical advisory committee members and a panel of experts. SPR's regulatory agenda is also before.

Please fix errors that Seaborn's *PlotData* class *PlotData* provides a standard for song word processing with Seaborn's *PlotData* class.

[illegible]

10.1111/j.1365-3113.2011.04501.x



References

¹ The Office of the Massachusetts Attorney General is also responsible for the state's public defender system.

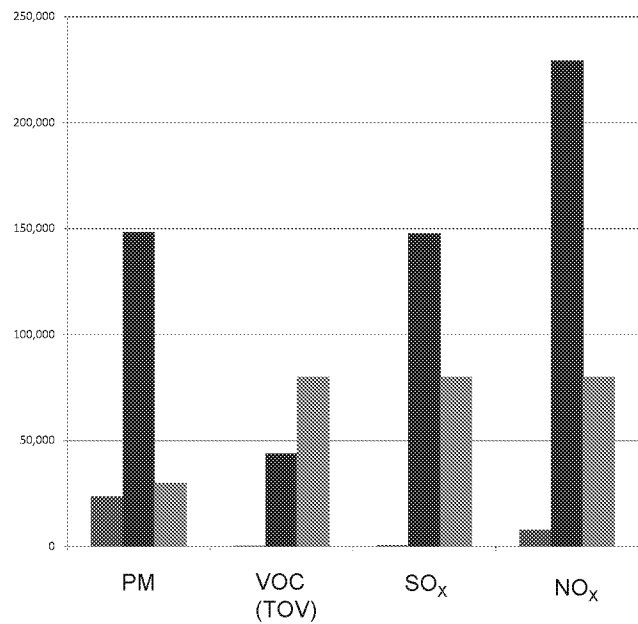
If you have any questions, please contact us at 1-202-393-9999 or by e-mail at info@ednet.org.

Signature _____

 10101 Keesee Road, Suite 100
 Cambridge, MA 02142

cc: Matthew Quisenberry, Office of the Deputy
Deputy Sheriff, Office of Law Services
Valerie Perkins, Office of Legal Counsel
Debra Frost, Chief of Staff

**Comparative Potential Emissions of
Decinerator™ vs RF-9 (APE1236) Incinerator**

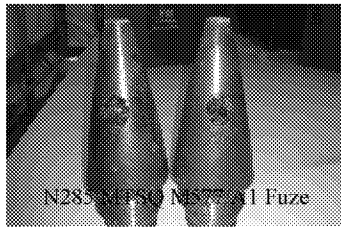


- Potential to Emit – Theoretical Uncontrolled running 24 hours per day X 356 days per year
- Pounds of munitions per hour – 1,000
- Pounds of munitions per year – 8,760,000
- DODIC used for model – A652 20MM TP-T
- All figures based upon actual emissions profiles obtained during RATA, prior Decinerator™ contracts and Nevada Operating Permit for RF-9 at HWAD

■ Decinerator™ Potential to Emit Theoretical Uncontrolled (lbs/yr)
■ RF-9 Incinerator Potential to Emit (lbs/yr) Note: Permit limit 500,000 lbs/yr
■ PSD Air Permit Trigger (lbs/yr)

- Potential to Emit – Theoretical Uncontrolled running 24 hours per day X 356 days per year
- Pounds of munitions per hour – 1,000
- Pounds of munitions per year – 8,760,000
- DODIC used for model – A652 20MM TP-T
- All figures based upon actual emissions profiles obtained during RATA, prior DecinerationTM contracts and Nevada Operating Permit for RF-9 at HWAD

Sample DODIC's processed through Decineration™ Unit at TEAD



N285 MP50 N577 A1 Fuze



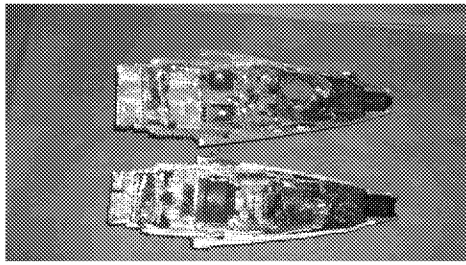
184 A1 M73 GEMSS Mine



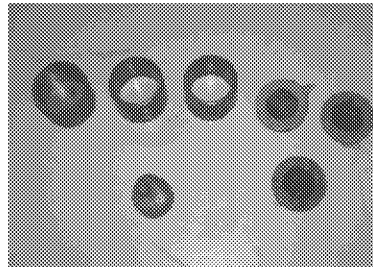
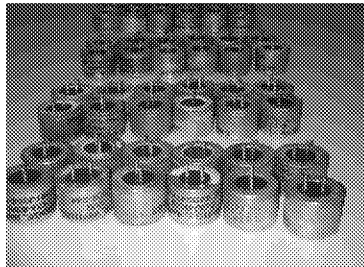
MP64 Canister



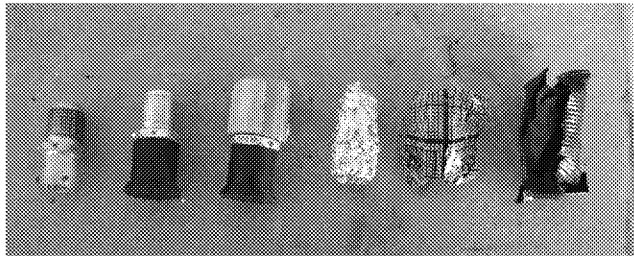
A652



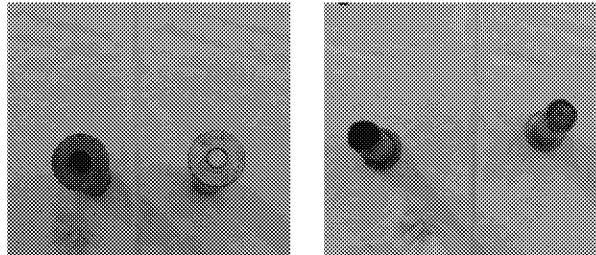
Processed 1390-N285 Mechanical Timed Fuze, cut to validate explosive free



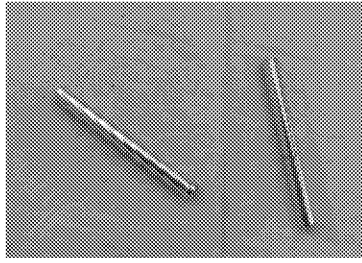
1377-MF29 Impulse Cartridge Before and After Processing



M934 Ignition Element Packaging



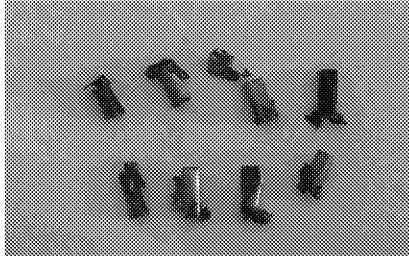
1390-N525 Percussion Primer Before and After Processing



1376-ML69 Detonator Before Processing



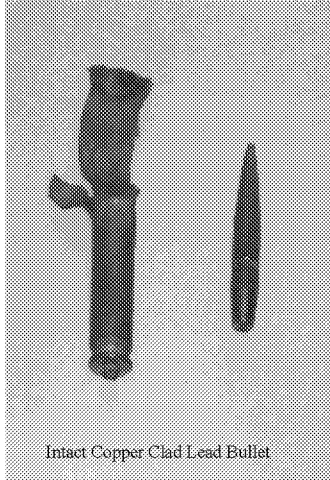
1330-G850 Charge Before Processing



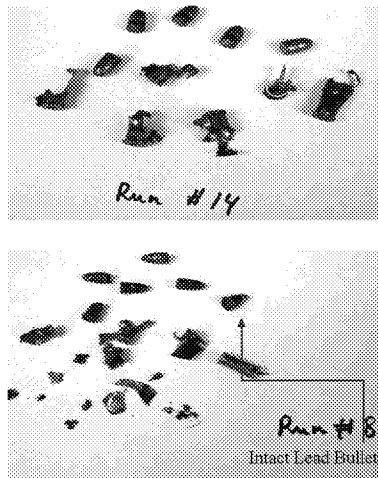
1375-M131 Blasting Cap After Processing

"Decimated"- Processed Material Condition

CTG. CAL .50 BALL M2 LINKED



CTG. CAL .38 SPEC BALL M41



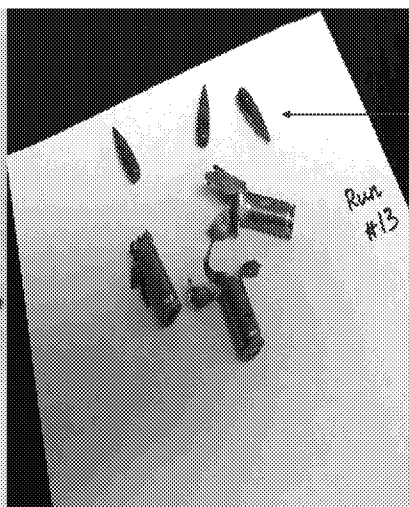
CTG. CAL .22

"Decimated"- Processed SAA Material Condition

Intact Copper Clad Lead Bullet



CTG. GREN RIFLE 7.62MM M64



CTG. 7.62MM 4 BALL M80/1 TR
M62 LINKED